

REMARKS

The undersigned thanks the Examiner for the courtesy extended by the grant of a telephone interview, and for the further courtesy of a second telephone interview communicating the Examiner's findings in an additional search.

The Examiner has cited newly discovered U.S. Pat. No. 6,330,690 to Nouri ("Nouri"). The Examiner is of the view that a two-way combination of Nouri with previously cited U.S. Pat. No. 6,000,020 to Chin ("Chin") supposedly renders the pending claims obvious.

Claims 5 and 6 have been amended to set forth as clearly as possible that the reset controller is external to and distinct from the processor being reset, and that the resetting of the processor is achieved by means of a hardware reset interrupt command. As a reminder, the reset controller 300 may be seen in Fig. 3, the hardware reset line 530 may be seen in that figure, and the processor 180 that is being reset may be seen. The reset controller 300 is external to and distinct from the processor 180.

The Examiner will doubtless recall the points made in the previous response to office action, which points were discussed in some detail during the telephone interview. Briefly, in the previous response to office action, the undersigned drew the Examiner's attention to a place in the specification where the applicant points out the difference between a hardware reset and a software reset. In the case of a software reset, a software message is sent to the processor that is supposed to reset itself. If the processor is not too badly malfunctioning, then it may in fact be able to respond to the software message by resetting itself. On the other hand if the processor is running amok, it may well not respond properly or at all to the software message. Only by more drastic means such as power-cycling the equipment or actuating a hardware reset signal will the processor have any hope of returning to its normal function.

The Examiner acknowledged that with this distinction in mind, all pending claims were

patentable over Chin. Chin only disclosed a system employing a software reset, and indeed the applicant in the specification as filed had already admitted that such systems, employing a software reset, were known.

Now what is urged by the Examiner is a two-way combination of newly discovered Nouri together with Chin.

It is instructive to review Nouri in some detail. The undersigned studied Nouri closely, looking to see if Nouri disclosed a reset controller external to and distinct from the processor being reset, and to see if Nouri disclosed the use of a hardware reset signal.

Even when viewed with a most forgiving eye, it seems to the undersigned that Nouri is sketchy at best about how it does the operation that it calls a "reset." It is not at all clear to the undersigned where the processor is that is being reset (if any) and where the reset controller (if any) may be found. Even if one arbitrarily selects two functional blocks in Nouri and calls one the processor and the other the reset controller, it is not at all clear to the undersigned whether there is any hardware reset line to be seen anywhere in Nouri.

To the extent that the undersigned is able to find any system diagram in Nouri it is apparently Fig. 1. Nowhere in Fig. 1 is the undersigned able to find a reset controller that responds to frames of data, or that sends hardware reset commands to some other processor.

In the Office Action the Examiner mentions a "resetting apparatus" having a reference numeral 164, an apparent reference to the CPU 164 in Nouri Fig. 2. The Examiner seems to be suggesting that this CPU 164 may send hardware reset signals to other processors, perhaps not shown in Fig. 2. But it must be kept in mind that Nouri's way of communicating within the server is by means of microcontroller bus 160. Nouri explains (col. 9, line 37 to col. 11, line 37) that this bus is an I²C bus. The Examiner is doubtless aware that an I²C only communicates messages between microcontrollers if they are all

healthy and able to execute their own software so as to frame, decode, interpret, and act upon I²C messages. A microcontroller that has run amok and needs to be reset will very likely be completely unable even to understand I²C messages. Stated differently, if a message that is termed a "reset" message is sent on an I²C bus, that message is at best a "software reset". It is not a hardware reset.

Thus, so far as the undersigned can discern, Nouri fails as a reference for at least one of the same reasons as Chin. It does not appear to use hardware resets as set forth in the claims, any more than Chin did.

The sketchiness of Nouri regarding how it performs resets is highlighted by other parts of Nouri which are cited by the Examiner.

The Examiner mentions reference numerals 580 and 582, apparently referring to Nouri Fig. 8B and the "reset flow" text section of Nouri at col. 18, line 18 to col. 20, line 31. The undersigned has closely studied this figure and this text section and is unable to see any of the claim limitations in either place. Indeed Fig. 8B seems actively to teach away from the claimed invention, for example at box 590 where it is stated that the "server receives the command and resets the server." It looks as though the thing that receives the message (the server) resets itself. If that is so, then there is no "reset controller" (as in the claims) that resets a "processor" (as in the claims) where the reset controller is external from and distinct from the processor being reset. Likewise there seems to be no hardware reset signal at all.

Thus in Fig. 8B we have a suggestion from Nouri that Nouri's server resets itself, rather than a reset controller resetting a processor. Elsewhere in Nouri we have columns upon columns of text that seem to mention only one way in which various microcontrollers communicate with each other by means of I²C messages, messages that will never serve to reset a microcontroller if it is already running amok too badly.

From the above discussion it appears to the undersigned that Nouri does only software resets, just like Chin. If so, then combining it with Chin comes no closer to rendering the claims unpatentable than Chin would all by itself. But it is perhaps helpful to assume, solely for purposes of discussion, that against all odds Nouri somehow did disclose a hardware reset apparatus as set forth in the claims. If we were to assume this about Nouri, then of course as admitted by the Examiner nothing in Nouri even mentions the fibre-channel arbitrated loop limitations from the claims. This, then, would be the reason why the Office Action now cites to Chin. The Examiner expresses, without support, the view that it would have been obvious to one skilled in the art to combine Nouri and Chin. The undersigned disagrees with this view, and motivated by the case of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970) the undersigned hereby challenges this view and asks whether the Examiner can show support for this view.

In the previous paragraph the undersigned notes the lack of support in the record for the view that one skilled in the art would combine those two particular references. But from the perspective of the undersigned, there is another more serious problem with the suggestion that these two references could have (and would have) been combined by those skilled in the art "at the time the invention was made." This more serious problem will now be discussed in some detail.

The application claims priority from two Irish patent applications filed in March and June 2001. It is suggested that these two priority applications show invention by the applicant of the invention at that time. Thus, it is suggested that "the time the invention was made" was at least as early as June 2001 and may have been as early as March 2001. ***But at that time, Nouri was secret within the US Patent Office!*** So far as the undersigned is aware, in March 2001 or June 2001, those skilled in the art would have had no access to Nouri, see 37 CFR section 1.14. The first access to Nouri would have been upon its issuance on December 11, 2001.

Thus it is suggested that it would have been impossible at the time the invention was

made for anyone skilled in the art to have combined Nouri with anything else, let alone with Chin.

Reconsideration is requested.

Respectfully submitted,



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